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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,388	11/19/2003	Asao Matsushima	KON-1835	7530

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MUSERLIAN, LUCAS AND MERCANTI, LLP  
475 PARK AVENUE SOUTH  
15TH FLOOR  
NEW YORK, NY 10016

EXAMINER
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NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/717,388

Applicant(s)

MATSUSHIMA ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 3,5-8 and 16-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The examiner acknowledges the amendments to claims 1-8 and the addition of claims 13-24 set forth in the amendment filed on Feb. 25, 2005. Claims 1-24 are pending.

2. The replacement drawing sheet of Fig. 1 received on Feb. 25, 2005, is acceptable.

3. Applicants' election with traverse of the invention of Group I, which includes instant claims 1-8 and newly added claims 13-24, in the reply filed on Feb. 25, 2005, is acknowledged. The traversal is on the ground(s) that because the method claims 9-12 utilize the toner of claim 1, claims 9-12 should be subject to rejoinder when the toner of claim 1 is allowed. This is not found persuasive. As set forth in the restriction requirement, the examiner has provided reasons as to why the toners of Group I are patentably distinct from the methods of using in Group II. Applicants have not specifically indicated the errors in the restriction or specifically articulated why the reasons for restriction are inadequate. In addition, applicants have not provided any reasons why the toners in Group I and the methods of using in Group II are not patentably distinct, or stated on the record that the inventions of the two groups are obvious variations of each other.

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The requirement is still deemed proper and is therefore made FINAL.

4. Claims 9-12 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement in the reply filed on Feb. 25, 2005.

5. The objection to the drawings set forth in the office action mailed on Dec. 1, 2004, paragraph 6, has been withdrawn in response to the replacement drawing sheet of Fig. 1 filed on Feb. 25, 2005, and the amended paragraph filed on Feb. 25, 2005, beginning at page 48, line 11, of the specification.

The objections to the specification set forth in the office action mailed on Dec. 1, 2004, paragraph 7, items (1) and (2), have been withdrawn in response to the amended paragraphs filed on Feb. 25, 2005, beginning at page 45, line 4, page 44, line 6, and page 48, line 11, of the specification.

The objection to claim 8 set forth in the office action mailed on Dec. 1, 2004, paragraph 10, has been withdrawn in response to the amendment filed on Feb. 25, 2005, to claim 8.

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6. The disclosure is objected to because of the following informalities:

The use of trademarks, e.g., "Coulter counter" [sic: COULTER COUNTER] at page 52, line 4, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

Applicants' arguments filed Feb. 25, 2005, have been fully considered but they are not persuasive.

Applicants assert that they have made appropriate corrections to the specification.

However, for the reasons discussed above, the amendment to the specification filed on Feb. 25, 2005, did not capitalize all the trademarks disclosed in the instant specification. Accordingly, the objection stands.

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7. The examiner notes that the instant specification at page 14, lines 18-20, defines the term "colored particles" recited in the instant claims as "toner particles which have not been mixed with external additives.)

8. In view of the disclosure in the instant specification, the "external additive particles" in the limitation, "sum of the colored particles and external additive particles having particle diameter of at most 2.5  $\mu\text{m}$ " (emphasis added) of 0.1 - 10 percent by volume based on the sum of colored particles and the external additive particles, recited in the instant claims has been interpreted by the examiner to refer to external additive particles that are not attached to the colored particles. Antecedent basis for the examiner's interpretation is found at page 15, lines 1-9, of the specification. The specification at page 15, discloses that "toner comprising external additives is sieved employing a 400-mesh sieve. The difference in the amount of external additives between prior to [sic; before] and after sieving is determined in terms of percent [sic: measured] by weight. The resulting difference is converted to a percentage by volume based on specific gravity, which is designated as (B)."

The recitation "percent by volume based on the sum the colored particles and the external additive particles" in instant claims 1-3 and 8 has been interpreted by the examiner to refer to the percent by volume based on the total volume of the colored particles and external additive particles present in the toner.

The recitation "percent by volume based on the colored particles" in instant claims 4, 5, 8, 21, 22, and 24 has been interpreted by the examiner to refer to the percent by volume based on the total volume of the colored particles present in the toner.

The recitation "percent by volume based on the external additive particles" in instant claims 6-8, 23, and 24 has been interpreted by the examiner to refer to the percent by volume based on the total volume of the external additive particles present in the toner.

In the response filed on Feb. 25, 2005, applicants do not disagree or agree with the examiner's definitions.

Rejections based on the examiner's interpretations are set forth infra.

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 4, and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over European Patent 0,331,425 (EP'425).

EP'425 discloses the toner A comprising colored particles and externally added hydrophobic silica particles. The colored particles comprise a binder resin and as a colorant, magnetic powder. Toner A has a volume average particle diameter of 7.8  $\mu\text{m}$ , which is within the range of 4.0 to 8.0  $\mu\text{m}$  recited in instant claim 1. See example 1 at pages 11-14, and Table 2 at page 15, toner A. Prior to the addition of the external additive, the colored particles comprise an accumulated amount of 0.0% by volume of particles having a particle size of 3.17  $\mu\text{m}$  or less. See Table 1 at page 13. Because the EP'425 colored particles in example 1 have an accumulated 0.0% by volume of color particles having a particle size of 3.17  $\mu\text{m}$  or less, the EP'425 colored particles meet the limitation of comprising "9 percent or less by volume" of colored particles having particle diameter of at most 2.5  $\mu\text{m}$  based on the colored particles recited in instant claim 4. After the addition of the external additives to the colored particles, the resultant toner A comprises 10% by volume of particles having a particle size of 5  $\mu\text{m}$  or less. The value of 10% by volume was determined



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by dividing the percent by number of particles  $\leq 5 \mu\text{m}$  by the ratio of the percent by number to the percent by volume of particles  $\leq 5 \mu\text{m}$  reported in Table 2 for the toner in example 1 (i.e., 35/3.4). See page 14, line 4. The EP'498 amount of 10% by volume of particles having a particle size of  $\leq 5 \mu\text{m}$  is within the numerical range of "0.1 to 10% by volume of particles having a particle size of at most 2.5  $\mu\text{m}$  based on the sum of colored particles and external additive particles" recited in instant claim 1.

EP'425 does not explicitly disclose that the amount of 10% by volume is the sum of color particles and external additive particles having particle size of  $\leq 5 \mu\text{m}$ . However, as discussed supra, the particle size distribution of the toner A appears to have been determined after the addition of the external additive particles. Thus, it is reasonable to conclude that the amount of 10% by volume is of the sum of color particles and the external additive particles having a particle size of  $\leq 5 \mu\text{m}$  in the toner A of EP'425. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP'425 combined with US 6,596,452 B2 (Magome).

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EP'425 discloses a toner as described in paragraph 10 above, which is incorporated herein by reference.

EP'425 does not specify the particle size of the externally added hydrophobic silica. EP'425 identifies the hydrophobic silica particles as a hydrophobic dry process silica having a BET specific surface area of  $200 \text{ m}^2/\text{g}$ . EP'425, page 14, line 1.

Magome teaches hydrophobic silica particles produced by treating a silica fine powder having a number average particle size of 9 nm with hexamethyldisilazane and a silicone oil. The hydrophobic silica particles have a BET specific surface area of  $200 \text{ m}^2/\text{g}$ . Col. 64, lines 25-29. The number average primary particle size of 9 nm meets the number average size of 5 to 1,500 nm recited in instant claim 13. The BET specific surface area of  $200 \text{ m}^2/\text{g}$  is within the teachings of EP'425. Magome teaches that hydrophobic silica particles having a number-average particle size of 4 to 80 nm can be added as a fluidity improver to magnetic toners. Col. 38, lines 16-19. Magome further teaches that if the number average primary particle diameter is larger than 80 nm, "it is hard to attain a good fluidity of the magnetic toner, so that the magnetic toner particles tend to be non-uniformly charged to tend to cause problems of fogging greatly, a decrease in image density and

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toner scatter." If the number average particle size is less than 4 nm, the silica powder may be "strongly susceptible to agglomerate, and tends to behave not as primary particles but as agglomerates . . . [which] may scratch the image-bearing member or the toner-carrying member to tend to cause faulty images."

Col. 38, lines 27-29, and 33-45. The reference appears to recognize that the number average particle size of the hydrophobic silica particles is a result-effective variable. The variation of a result-effective variable is presumably within the skill of the ordinary worker in the art.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Magome, to use a hydrophobic silica having a BET specific surface area of 200 m<sup>2</sup>/g and having a number average particle size of 9 nm as the hydrophobic silica in the magnetic toner disclosed by EP'475, because that person would have had a reasonable expectation of successfully obtaining a magnetic toner with good fluidity as disclosed by Magome.

12. Applicants' arguments filed on Feb. 25, 2005, regarding the rejections over EP'425 in paragraphs 10 and 11 above have been fully considered but they are not persuasive.

Applicants assert that EP'425 does not anticipate the claimed volume of particles having a particle size of  $\leq 2.5 \mu\text{m}$  because the EP'425 volume percentage is for particles having particle sizes of  $\leq 5 \mu\text{m}$ , not  $\leq 2.5 \mu\text{m}$  as recited in instant claim 1. Applicants further assert that the examiner should not assume that the volume percentage for the larger particle size of EP'425 can be correlated to the smaller particle size of  $\leq 2.5 \mu\text{m}$  recited in instant claim 1.

However, as discussed in the rejection in paragraph 10 above, EP'425 teaches that its toner comprises 10% by volume of particles having a particle size of  $\leq 5 \mu\text{m}$ . The EP'425 amount of 10% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  includes particles having particle sizes of  $2.5 \mu\text{m}$  or less. In the EP'425 toner, the amount of particles having particle sizes of  $\leq 2.5 \mu\text{m}$  can be at most 10% by volume of particles, which is within the range of 0.1 to 10% by volume of particles recited in instant claim 1. There is no dispute that the EP'425 toner contains some particles having particle sizes  $\leq 2.5 \mu\text{m}$ . Thus, the EP'425 amount 10% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  meets the range of 0.1 to 10% by volume of particles having particle sizes of or less  $\leq 2.5 \mu\text{m}$  recited in instant claim 1.

Applicants further assert that because EP'425 does not teach or suggest that the particle size or the volume percentage of the additive should be considered when preparing the toner as disclosed by applicants in the instant specification, it is therefore not possible to determine whether EP'425 teaches the 4.0-8.0  $\mu\text{m}$  diameter distribution of claim 1, since the diameter distribution is based on the toner which includes the additive. Applicants assert that claim 1 is not anticipated since the diameter distribution of the toner including the additive cannot be accurately calculated.

Applicants' arguments are not persuasive. Claim 1 recites that the "volume average particle diameter of the toner is 4.0-8.0  $\mu\text{m}$ " (emphasis added). The toner in claim 1 comprises colored particles (i.e., toner particles) and the external additive. The EP'425 volume average particle diameter of 7.8  $\mu\text{m}$  is also of the toner, which also includes toner particles and the external silica additive. Thus, the EP'425 toner volume average particle meets the toner volume average particle size for the same reasons as applicants' toners.

Applicants also assert that because EP'425 teaches that the toner particles (i.e. colored particles) are present at 0% by volume for the particle size range of 2.00-2.52  $\mu\text{m}$ , EP'425 teaches that "the colored particles at a size of approximately

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2.5  $\mu\text{m}$  are present in a volume% below the claimed range of 0.1 to 10%."

However, the claimed range of 0.1 to 10% by volume of particles having a particle size of  $\leq 2.5 \mu\text{m}$  represents the sum of toner particles and external additive particles, not of toner particles alone. The EP'425 amount of 10% by volume represents the total amount of toner particles and the external silica particles having particle sizes of  $\leq 5 \mu\text{m}$ .

Applicants assert that the present invention is not obvious over EP'425 because EP'425 does not teach or suggest the criticality of the claimed 10% volume percentage demonstrated in Tables 4 and 5 of the instant specification.

However, for the reasons discussed above, the EP'425 amount of 10% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  meets the range of 0.1 to 10% by volume of particles having particle sizes of  $\leq 2.5 \mu\text{m}$  recited in the instant claims. Accordingly, the EP'425 toner meets the volume average particle size limitation and volume percentage recited in instant claim 1. Unexpected results are irrelevant when the basis of rejection is anticipation.

Furthermore, the showing in the instant specification is insufficient to show that the range recited in instant claim 1 is critical because the showing is not commensurate in scope

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with the instant claims. The examples labeled of the invention comprise preferred toners comprising preferred external additive particles having a preferred number average particle size; a preferred volume percentage, i.e., ranging from 3.0% to 7.2%, of the sum of the toner particles and external particles having particle sizes of  $\leq 2.5 \mu\text{m}$ ; and a preferred volume percentage, i.e., ranging from 0.1 % to 1.1%, of external particles, based on the sum of colored particles and external particles. See instant dependent claims 2, 3, and 13, which depend from claim 1. Accordingly, given the welter of unconstrained variables and applicants' limited showings, the instant specification does not show that the full range of 0.1 to 10% by volume recited in instant claim 1 provides unexpected results as alleged by applicants.

Accordingly, for the reasons discussed above and in the rejections, the rejections over EP'425 stand.

13. Claims 1, 2, 4, 14, and 15 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 6,656,653 B2 (Mitsubishi).

Mitsubishi discloses a toner comprising colored particles and externally added hydrophobic silica. The colored particles comprise a binder resin, a colorant, and a wax comprising

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behenyl behanate, which meets the compositional limitation of the compound recited in instant claim 15. The toner has a volume average particle diameter of 7.2  $\mu\text{m}$ , which is within the range of 4.0 to 8.0  $\mu\text{m}$  recited in instant claim 1. See example 1 at cols. 18-20. Mitsunashi discloses that after the addition of the hydrophobic silica to the colored particles, the resulting toner comprises 3.5% by volume of particles having a particle size of 5  $\mu\text{m}$  or less. Col. 20, lines 49-50. The value of 3.5% by volume of particles having a particle size of  $\leq 5 \mu\text{m}$  is within the numerical ranges of 0.1 to 10% and 0.3 to 8% by volume of particles having a particle size of at most 2.5  $\mu\text{m}$  based on the sum of colored particles and external additive particles, recited in instant claims 1 and 2, respectively.

Mitsunashi does not explicitly disclose that the amount of 3.5% by volume is the sum of colored particles and external additive particles having particle size of  $\leq 5 \mu\text{m}$ . Nor does Mitsunashi disclose that its colored particles comprise 9% by volume or less of colored particles having a particle diameter of at most 2.5  $\mu\text{m}$  as recited in instant claim 4. However, as discussed supra, Mitsunashi discloses that the toner, after the addition of the hydrophobic silica to the colored particles, has the disclosed particle distribution of 3.5% by volume of particles having a particle size of 5  $\mu\text{m}$  or less. Furthermore,



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the value of 3.5% by volume of particles having a particle size of 5  $\mu\text{m}$  or less is much lower than the value of 9% by volume or less of colored particles having a particle size of at most 2.5  $\mu\text{m}$  recited in instant claim 4. Thus, it is reasonable to conclude that the amount of 3.5% by volume is of the sum of colored particles and the external additive particles having a particle size of  $\leq 5 \mu\text{m}$  in the toner of example 1 of Mitsuhashi, and that the colored particles in the toner of Mitsuhashi comprise colored particles having a particle size of at most 2.5  $\mu\text{m}$  in an amount of 9% by volume or less based on the colored particles as recited in instant claim 4. The burden is on applicants to prove otherwise. Fitzgerald, supra.

Applicants' arguments filed on Feb. 25, 2005, have been fully considered but they are not persuasive.

Applicants assert that Mitsuhashi does not anticipate the claimed volume of particles having a particle size of  $\leq 2.5 \mu\text{m}$  because the Mitsuhashi volume percentage is for particles having particle sizes of  $\leq 5 \mu\text{m}$ , not  $\leq 2.5 \mu\text{m}$  as recited in instant claim 1. Applicants further assert that the examiner should not assume that the volume percentage for the larger particle size of Mitsuhashi can be correlated to the smaller particle size of  $\leq 2.5 \mu\text{m}$  recited in instant claim 1.

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However, for the reasons in the rejection above, it is reasonable to presume that the Mitsushashi 3.5% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  is the sum of toner particles and external additive particles having particle sizes of  $\leq 5 \mu\text{m}$ . The Mitsushashi amount of 3.5% by volume is within the range of 0.1 to 10% by volume recited in instant claim 1. The Mitsushashi amount of 3.5% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  includes particles having particle sizes of  $2.5 \mu\text{m}$  or less. In the Mitsushashi toner, the amount of particles having particle sizes of  $\leq 2.5 \mu\text{m}$  can be at most 3.5% by volume of particles, which is within the range of 0.1 to 10% by volume of particles recited in instant claim 1. There is no dispute that the Mitsushashi toner contains some particles having particle sizes  $\leq 2.5 \mu\text{m}$ . Thus, the Mitsushashi amount 3.5% by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  meets the range of 0.1 to 10% by volume of particles having particle sizes of or less  $\leq 2.5 \mu\text{m}$  recited in instant claim 1.

Applicants further assert that because Mitsushashi does not teach or suggest that the particle size or the volume percentage of the additive should be considered when preparing the toner as disclosed by applicants in the instant specification, it is therefore not possible to determine whether Mitsushashi teaches the 4.0-8.0  $\mu\text{m}$  diameter distribution of claim 1, since the

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diameter distribution is based on the toner which includes the additive. Applicants assert that claim 1 is not anticipated since the diameter distribution of the toner including the additive cannot be accurately calculated.

Applicants' arguments are not persuasive. Claim 1 recites that the "volume average particle diameter of the toner is 4.0-8.0  $\mu\text{m}$ " (emphasis added). The toner in claim 1 comprises colored particles (i.e., toner particles) and the external additive. The Mitsuhashi volume average particle diameter of 7.2  $\mu\text{m}$  is also of the toner, which also includes toner particles and the external silica additive. Thus, the Mitsuhashi toner volume average particle meets the toner volume average particle size for the same reasons as applicants' toners.

Applicants assert that the present invention is not obvious over Mitsuhashi because Mitsuhashi does not teach or suggest the criticality of the claimed 10% volume percentage demonstrated in Tables 4 and 5 of the instant specification.

However, for the reasons discussed above, the Mitsuhashi amount of 3.5 by volume of particles having particle sizes of  $\leq 5 \mu\text{m}$  meets the range of 0.1 to 10% by volume of particles having particle sizes of  $\leq 2.5 \mu\text{m}$  recited in the instant claims. Accordingly, the Mitsuhashi toner anticipates the toner recited

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in instant claims 1, 2, 4, 14, and 15. Unexpected results are irrelevant when the basis of the rejection is anticipation.

Furthermore, for the reasons discussed in paragraph 10 above, the showing in the instant specification is insufficient to show that the range recited in instant claim 1 is critical because the showing is not commensurate in scope with the instant claims.

Accordingly, for the reasons discussed above and in the rejection, the rejection over Mitsuhashi stands.

14. Claim 16 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

15. Claims 3 and 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17-24 are objected to as being dependent upon objected claim 16, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest the toner recited in instant claims 3, 5-8, and 17-24.

Neither EP'425 nor Mitsuhashi teaches or suggests a toner comprising external additive particles having a particle diameter of at most 2.5  $\mu\text{m}$  that are present in the amount of 0.5 to 5 percent by volume based on the sum of the colored particles and the external additive particles as recited in instant claims 3 and 17-21. Nor is there enough evidence on the present record for a person having ordinary skill in the art to reasonably conclude that the toners taught in either EP'425 or Mitsuhashi comprise such a percent by volume of external additive particles as recited in instant claims 3 and 17-21.

Neither EP'425 nor Mitsuhashi teaches or suggests a toner comprising colored particles having a particle diameter of at most 2.5  $\mu\text{m}$  that are present in the amount of 0.05 to 8 percent by volume based on the colored particles as recited in instant claims 5 and 22. Nor is there enough evidence on the present record for a person having ordinary skill in the art to reasonably conclude that the toners taught in either EP'425 or

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Mitsubishi comprise the percent by volume of colored particles recited in instant claims 5 and 22.

Neither EP'425 nor Mitsubishi teaches or suggests a toner comprising external additive particles having a particle diameter of at most 2.5  $\mu\text{m}$  that are present in the amount of 5 percent or less or 0.05 to 5 percent by volume based on the external additive particles, recited in instant claims 6 and 23 and claims 7, 8, and 24, respectively. Nor is there enough evidence on the present record for a person having ordinary skill in the art to reasonably conclude that the toners taught in either EP'425 or Mitsubishi comprise the percent by volume of external additive particles recited in instant claims 6-8, 23, and 24.

16. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD  
May 10, 2005

  
JANIS L. DOTE  
PRIMARY EXAMINER  
GROUP 1500  
1700